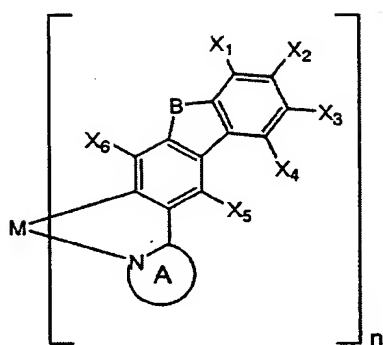
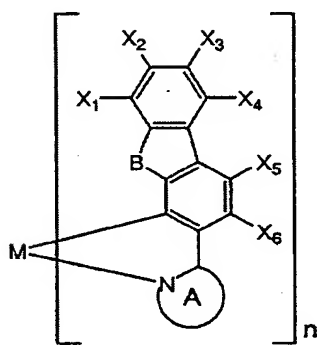


CLAIMS

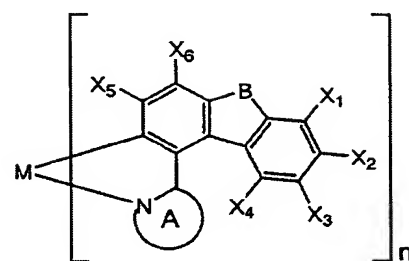
1. A metal coordination compound represented by any one of Formulae (1) to (6),



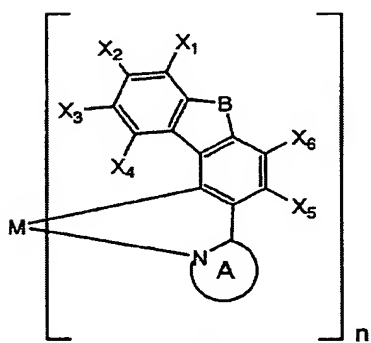
(1)



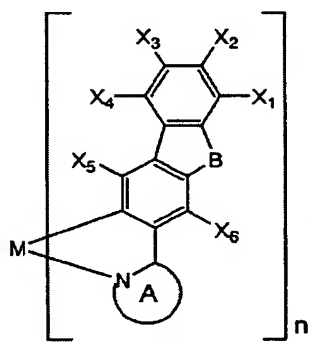
(2)



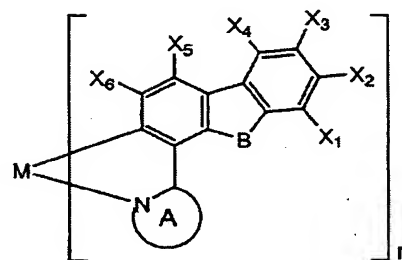
(3)



(4)



(5)



(6)

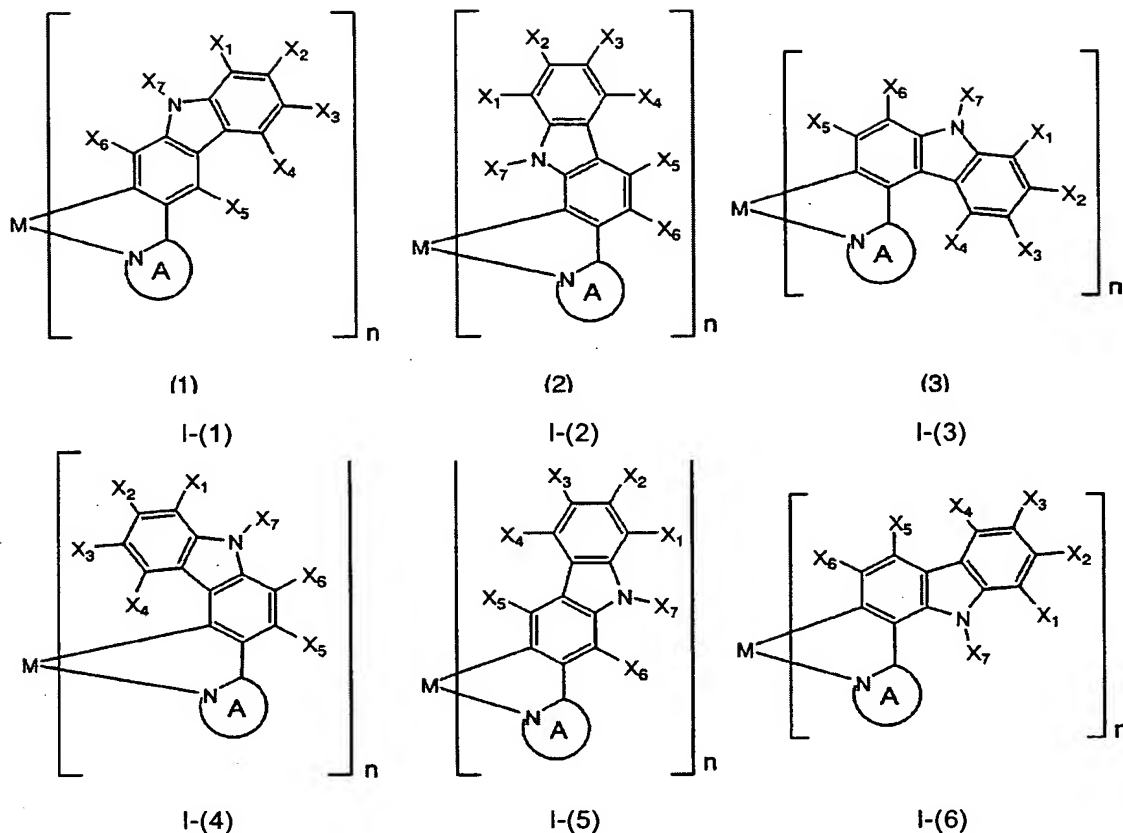
B : >NR, >O, >S, >C=O, >SO₂, >CR₂

5

(in the formulae, M is Ir, Rh, Ru, Os, Pd, or Pt, and \underline{n} is 2 or 3; when M is Ir, Rh, Ru, or Os and \underline{n} is 2, another bidentate ligand further bonds to M; ring A is a cyclic compound containing a nitrogen atom bonded to M; X₁ to X₆ and R are independently substituents selected from the group consisting of -R¹,

-OR², -SR³, -OCOR⁴, -COOR⁵, -SiR⁶R⁷R⁸, and -NR⁹R¹⁰ (here, R¹ to R¹⁰ represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, a C1 to C22 straight-chain, cyclic, or branched alkyl group or a corresponding halogen-substituted alkyl group in which a part or all of the hydrogen atoms are substituted by a halogen atom, a C6 to C21 aryl group, a C2 to C20 heteroaryl group, or a C7 to C21 aralkyl group, or a corresponding halogen-substituted aryl group, halogen-substituted heteroaryl group, or halogen-substituted aralkyl group in which a part or all of the hydrogen atoms are substituted by a halogen atom, and R¹ to R¹⁰ may be identical to or different from each other), X₁ to X₆ may be identical to or different from each other, and ring A may have a substituent that is the same as the groups defined by X₁ to X₆).

2. The metal coordination compound according to Claim 1, wherein it is represented by any one of Formulae I-(1) to I-(6),



(in the formulae, M is Ir, Rh, Ru, Os, Pd, or Pt, and \underline{n} is 2 or 3; when M is Ir, Rh, Ru, or Os and \underline{n} is 2, another bidentate ligand further bonds to M; ring A is a cyclic compound containing a nitrogen atom bonded to M; X₁ to X₇ may be any of a hydrogen atom, a halogen atom, a cyano group, a nitro group, a C1 to C22 straight-chain, cyclic, or branched alkyl group or a corresponding halogen-substituted alkyl group in which a part or all of the hydrogen atoms are substituted by a halogen atom, a C6 to C21 aryl group, a C2 to C20 heteroaryl group, or a C7 to C21 aralkyl group, or a corresponding halogen-substituted aryl group, halogen-substituted heteroaryl group, or halogen-substituted aralkyl group in which a part or all of the hydrogen atoms are

substituted by a halogen atom, X_1 to X_7 may be identical to or different from each other, and ring A may have a substituent that is the same as the groups defined by X_1 to X_7).

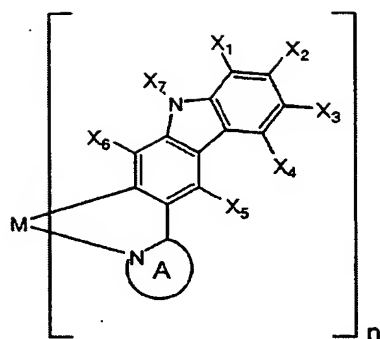
5 3. The metal coordination compound according to Claim 2, wherein in Formulae I-(1) to I-(6) ring A is pyridine, quinoline, benzoxazole, benzothiazole, benzimidazole, benzotriazole, imidazole, pyrazole, oxazole, thiazole, triazole, benzopyrazole, or triazine, which may have a substituent that is the same as the groups defined by X_1 to X_7 .

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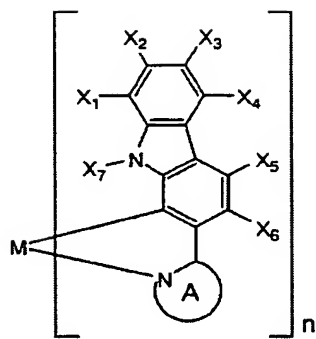
 4. The metal coordination compound according to either Claim 2 or Claim 3, wherein in Formulae I-(1) to I-(6) at least one of X_1 to X_7 and the substituent of ring A defined as being the same as X_1 to X_7 is a fluorine atom or a trifluoromethyl group.

15

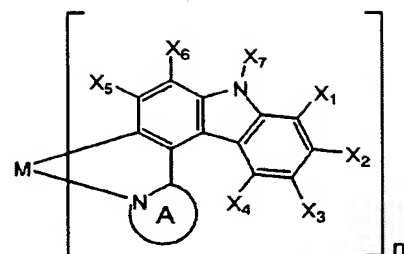
 5. The metal coordination compound according to Claim 1, wherein it is represented by any one of Formulae II-(1) to II-(6),



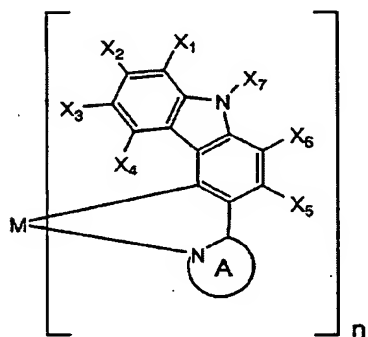
II-(1)



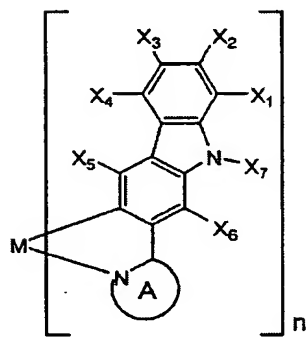
II-(2)



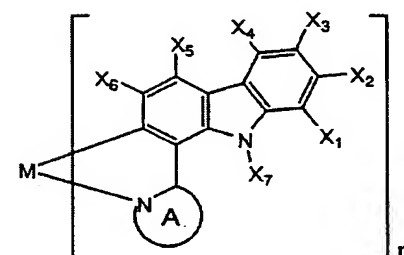
II-(3)



II-(4)



II-(5)



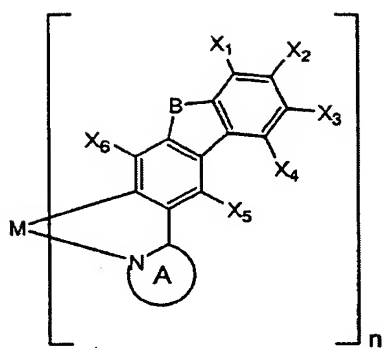
II-(6)

(in the formulae, M is Ir, Rh, Ru, Os, Pd, or Pt, and \underline{n} is 2 or 3; when M is Ir, Rh, Ru, or Os and \underline{n} is 2, another bidentate ligand further bonds to M; ring A is a cyclic compound containing a nitrogen atom bonded to M; X_1 to X_7 are independently substituents selected from the group consisting of -H, -OH, - R^1 , - OR^2 , - SR^3 , - $OCOR^4$, - $COOR^5$, - $SiR^6R^7R^8$, - NH_2 , - NHR^9 , and - $NR^{10}R^{11}$ (here, R^1 to R^{11} represent a C1 to C22 straight-chain, cyclic, or branched alkyl group, a C6 to C21 aryl group, a C2 to C20 heteroaryl group, or a C7 to C21 aralkyl group, and R^1 to R^{11} may be identical to or different from each other), X_1 to X_7 may be identical to or different from each other, and ring A may have a substituent that is the same as the groups defined by X_1

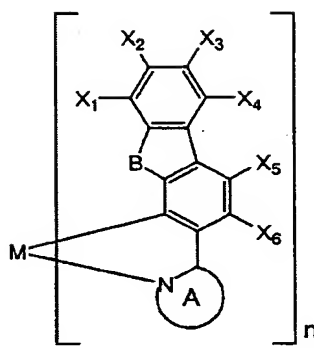
to X₇).

6. The metal coordination compound according to Claim 5, wherein in Formulae II-(1) to II-(6) ring A is pyridine, quinoline, benzoxazole, benzothiazole, benzimidazole, benzotriazole, imidazole, pyrazole, oxazole, thiazole, triazole, benzopyrazole, triazine, or isoquinoline, which may have a substituent that is the same as the groups defined by X₁ to X₇.

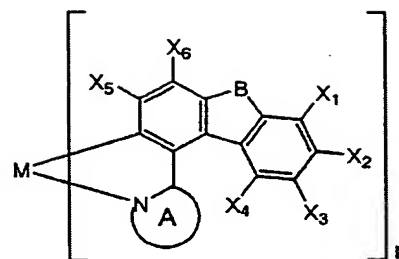
7. The metal coordination compound according to Claim 1, wherein it is represented by any one of Formulae III-(1) to III-(6),



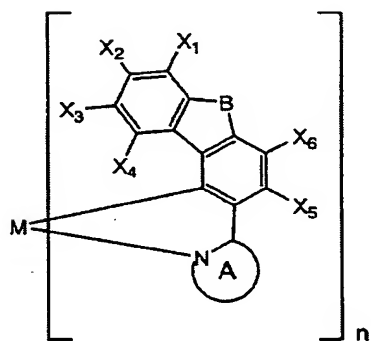
III-(1)



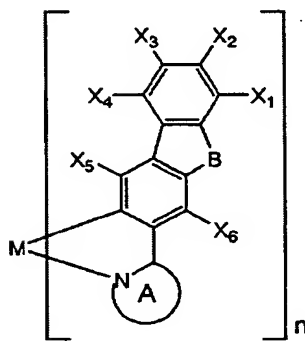
III-(2)



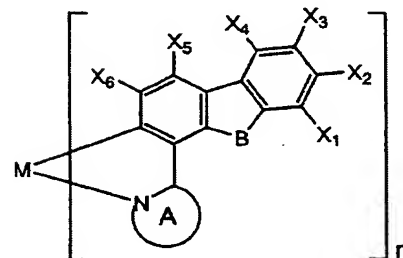
III-(3)



III-(4)



III-(5)



III-(6)

B : $>O$, $>S$, $>C=O$, $>SO_2$, $>CR_2$

(in the formulae, M is Ir, Rh, Ru, Os, Pd, or Pt, and \underline{n} is 2 or 3; when M is Ir, Rh, Ru, or Os and \underline{n} is 2, another bidentate ligand further bonds to M; ring A is a cyclic compound containing a nitrogen atom bonded to M; X_1 to X_6 and R are independently substituents selected from the group consisting of $-R^1$, $-OR^2$, $-SR^3$, $-OCOR^4$, $-COOR^5$, $-SiR^6R^7R^8$, and $-NR^9R^{10}$ (here, R^1 to R^{10} represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, a C1 to C22 straight-chain, cyclic, or branched alkyl group or a corresponding halogen-substituted alkyl group in which a part or all of the hydrogen atoms

are substituted by a halogen atom, a C6 to C21 aryl group, a C2 to C20 heteroaryl group, or a C7 to C21 aralkyl group, or a corresponding halogen-substituted aryl group, halogen-substituted heteroaryl group, or halogen-substituted aralkyl group in which a part or all of the hydrogen atoms are substituted by a halogen atom, and R^1 to R^{10} may be identical to or different from each other), X_1 to X_6 may be identical to or different from each other, and ring A may have a substituent that is the same as the groups defined by X_1 to X_6).

8. The metal coordination compound according to Claim 7, wherein in Formulae III-(1) to III-(6) ring A is pyridine, quinoline, benzoxazole, benzothiazole, benzimidazole, benzotriazole, imidazole, pyrazole, oxazole, thiazole, triazole, benzopyrazole, triazine, or isoquinoline, which may have a substituent that is the same as the groups defined by X_1 to X_6 .

9. The metal coordination compound according to any one of Claims 1 to Claims 8, wherein M is Ir.

10. A polymer composition comprising the metal coordination compound according to any one of Claims 1 to 9 and a conjugated and/or non-conjugated polymer.

11. An organic electroluminescent device fabricated using the metal coordination compound according to any one of Claims 1 to 9 or the

polymer composition according to Claim 10.